reveal themselves in the form of white cords, and it suffices to simply excite the solar plexus or the great splanchnic nerve, to render visible the nodosities that form along these vessels. These experiments were announced to the Société de Biologie, Apr. 2, and repeated in *Le Progrès Médical*, No. 15.

INFLUENCE OF THE SECTION OF THE TRIGEMINUS UPON THE EYE.—At the session of the Société de Biologie, Apr. 2 (reported in *Le Progrès Médical*), M. Poncet (of Cluny) reported the results of the experiments he had made on this subject. After showing the agreement among physiologists at the present time as to the traumatic origin of the consecutive corneal ulcer, he pointed out the *rôle* that the discoveries of Franck and of Dastre and Morat should play in the pathological physiology of the trigeminus, the former having demonstrated the action of a special filament of the sympathetic, the latter having proved the vaso-dilator action of the sympathetic on the labial mucous membrane. M. Poncet has found with M. Dastre that the vaso-dilatation by excitation of the sympathetic extends to the veins of the retina.

In the eyes of a rabbit, after section of the trigeminus, performed by M. Laborde himself, and after periods of eight, fifteen, and thirty days, and one year, he observed the following: (1) In the nerves of the cornea, the degeneration of which has been so well described by Ranvier, he found also, after a year, the complete regeneration of the corneal plexus in a mode altogether different from the normal one. In the midst of the inextricable nervous maze, he found nerve sheaths or old tubes that had not been regenerated. (2) The keratitis, which may be accompanied by an exudation into the internal chamber, especially affected the superficial corneal lamina. Neither iritis, nor suppuration of the processes, nor posterior choroiditis, nor disorder of the humors, nor migration of pigment in the retina, nor detachment of that membrane, existed, but in the retina the most internal layers are the seat of an œdema, characterized by the presence, between the optic fibres, of œdematous masses, perhaps due to hypertrophic degeneration of the ganglion cells; finally, by the increased volume of the protoplasm of the internal granulations. The other layers are healthy. These alterations differ essentially from those produced by the optico-ciliary section described by the author in preceding communications.

5. In physically debilitated cases, nervous individuals, and maniacs, an unusually dilated pupil is frequently observed, so constantly, indeed, that contracted pupils are looked upon in these cases as ominous symptoms of coming paralysis. There often occurs in these conditions, as well as in hysterical subjects and epileptics, a rhythmic alteration of the pupil, independent of the illumination or the convergence of the visual axes.

6. Narrow pupils are symptomatic of the disorders attended with diminution of the cortical function, especially in dementia paralytica.

7. Myosis is especially frequent in diseases of the spinal cord and medullo-spinal myosis; in tabes the contracted pupil is often perfectly insensible to light, while still reacting well with convergence movements.

8. Alterations of the pupil depend upon the simultaneous innervation of the sympathetic; an irritation of this latter in its peripheral course or in its cervical ganglia may show itself by pupillary dilatation (hemicrania, lead colic, Basedow's disease, intestinal irritation in children).

9. A dilated pupil is a very characteristic symptom of embarrassed respiration from the effects of carbonic acid on the medulla, as in whooping cough, vomiting attacks, eclamptic and epileptic attacks, labor pains, and phthisis. This symptom is of importance in chloroform narcosis; the utmost contraction showing when the extreme degree of narcosis is attained, that its dilatation from sensory irritation indicates that the patient is coming out from its effects. But if the pupil suddenly dilates while the narcosis persists, threatened asphyxia from carbonic acid poisoning is indicated.

10. The pupils are dilated with cerebral compression, tumors of the brain with choked disk, chronic hydrocephalus, hemorrhages in the cranial cavity, and in simple cerebral congestion.

11. Differences in the normally mobile pupil are signs of irregular innervation of the sympathetic, due to some irritation of the nerve either in its peripheral course or in its connection with the cerebral or spinal centres. A little atropia in the eye will show in any given case whether it is to a paralysis or to an irritation that the dilatation is due; in the first case it will be very slight, in the second very pronounced.

Unilateral mydriasis of a mobile pupil is a very important symptom of threatening brain disease, while the same with immobility (paralysis of the motor oculi) is not of much significance. Unilateral dilatation in a normally reacting pupil is always a sign of unilateral irritation of the sympathetic, and is, especially when sometimes one, sometimes the other eye is affected, a very unfavorable one. The dilated pupil from sympathetic irritation reacts poorly to stimuli of light, but contracts with movements of convergence, and is thus distinguished from mydriasis due to oculo-motor paralysis, and, besides, coëxists with absolutely intact accommodation. Pupillary inequalities are very frequently met with in the insane, especially in paralytics and demented cases.

CORTICAL CENTRES OF VISION.—Dr. J. C. Dalton, *N. Y. Med. Record*, March 26th, has repeated Ferrier's experiment of destroying the angular gyrus in monkeys and dogs, and with the same result—blindness of the eye on the side opposite the hemisphere of the brain operated upon. But he found the blindness persistent, instead of temporary, as was the case in Ferrier's monkeys. He deduces the following conclusions :

1. Extirpation of the angular convolution causes loss of visual perception on the opposite side.
2. This operation is not followed by any disturbance of the intelligence attitude, power of locomotion, or general sensibility.
3. It does not interfere with the local sensibility of the retina or conjunctiva, the reaction of the pupil to light, nor with the normal consentaneous movements of winking. Its effects, therefore, are confined to the exercise of visual sensibility.

A NEW CORTICAL CENTRE.—Dr. Græme M. Hammond, in a paper read at the New York Neurological Society, *N. Y. Med. Record*, March 19th, has studied the location of the giant cells of Betz, in the brain of the cat. He finds that they are not localized, as Betz had stated, but were less numerous near the sulcus cruciatus than posteriorly to it, and he has even found them not far from the base of the brain. The largest group of these cells he found in a locality not determinately fixed by physiologists as a motor centre,—in the first primary arched gyrus, between the Sylvian and anterior Sylvian fissures. It is nearer to a locality which Ferrier designated as a centre, excitation of which caused partial divergence of the lips, than to any other discovered motor centre, but it does not correspond exactly to that. The cells here are more ovoid or circular than the pyramidal ones of Betz and Mierzejewski, and even longer than the latter.